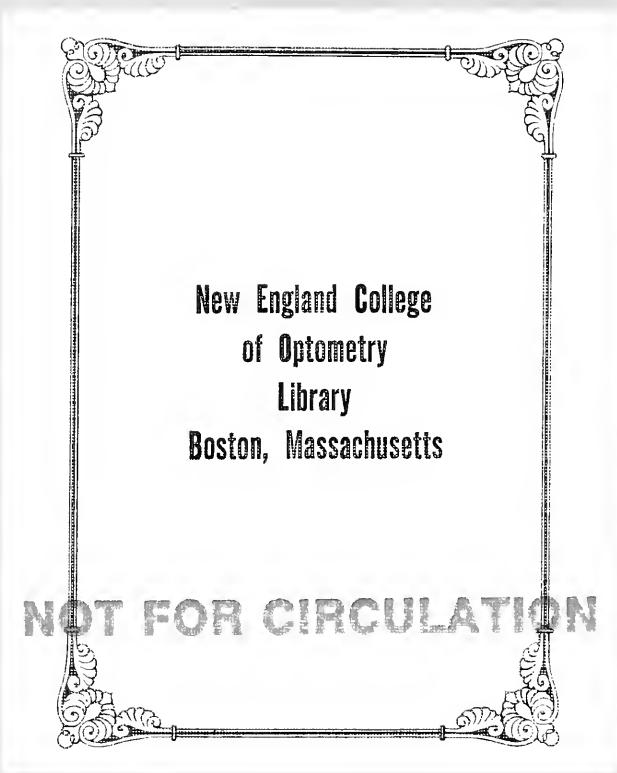


**BULLETIN**  
OF THE  
**MASSACHUSETTS**  
**SCHOOL OF OPTOMETRY**

*1944-1945*

BOSTON 15, MASSACHUSETTS



New England College  
of Optometry  
Library  
Boston, Massachusetts

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**BULLETIN**

OF THE

**MASSACHUSETTS**

**SCHOOL OF OPTOMETRY**

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## **OPTOMETRY, DEFINED AND EXPLAINED**

That Optometry, as a profession, has made unprecedented advancement and is now recognized as a specialized work requiring highly specialized training there can be no doubt. It offers to the qualified young person an opportunity to engage in a profession that promises a real career of service to humanity and one that is stimulating to the "science minded."

The word "OPTOMETRY" comes from the Greek, "opto," meaning "eye," and "metro," meaning "to measure." Its pronunciation is Op-tom-et-ry (like geometry).

Optometry requires the knowledge of a variety of subjects which are not a part of medical training; Optometry is not taught in Medical Schools nor is it covered by the state examinations of physicians. Optometry is taught in several universities and in independent Optometry Schools.

Optometrists use and prescribe physical agencies such as lenses, prisms, ocular exercises, etc., for the purpose of correcting optical defects of the eyes, improving the balance of the ocular muscles, the removal of eye-strain, the relief of defective vision, and the promotion of visual efficiency.

Every state in the Union, the District of Columbia, Canadian Provinces, and several foreign countries recognize Optometry as a separate and distinct profession having laws which govern the licensing and practice of Optometrists.

The Massachusetts School of Optometry is a non-profit institution and was established as co-educational in 1894. It is located in an educational center with excellent opportunities for clinical experience. The laboratories are supplied with modern equipment for teaching and research.

The course of instruction extends over four academic years and is planned to emphasize the general training of the student for the practice of Optometry. The number of students in the various classes is limited in order to insure proper instruction and to permit a full utilization of facilities.

# MASSACHUSETTS SCHOOL OF OPTOMETRY

## *Calendar*

1944-1945

### 1944

- Monday, July 31  
Classes resume. Freshman class begins. Quarter fees \$125.  
Monday, September 4  
Labor Day. Holiday.  
Monday, October 9  
Quarterly examinations begin. Junior finals.  
Wednesday, October 18  
Classes resume. Senior class begins. Quarter fees \$125.  
Wednesday, November 29  
Thanksgiving recess begins at close of last class.  
Monday, December 4  
Classes resume.  
Monday, December 18  
Quarterly examinations begin. Sophomore finals.  
Thursday, December 21  
Christmas recess begins.

### 1945

- Wednesday, January 3  
Classes resume. Junior class begins. Quarter fees \$125.  
Thursday, February 22  
Washington's Birthday. Holiday.  
Monday, March 19  
Quarterly examinations begin. Freshman finals.  
Wednesday, March 28  
Classes resume. Sophomore class begins. Quarter fees \$125.  
Thursday, April 19  
Patriots Day. Holiday.  
Wednesday, May 30  
Memorial Day. Holiday.  
Monday, June 11  
Quarterly examinations begin. Senior finals.  
Thursday, June 14  
Summer recess begins.  
Friday and Saturday, July 27 and 28  
Registration for freshman class.  
Monday, July 30  
Classes resume. Freshman class begins. Quarter fees \$125.  
Monday, September 3  
Labor Day. Holiday.  
Friday, October 12  
Columbus Day. Holiday.  
Monday, October 15  
Quarterly examinations begin. Junior finals.  
Wednesday, October 24  
Classes resume. Senior class begins. Quarter fees \$125.



## **LIBRARIES**

Library facilities are ample, inasmuch as the students have access not only to the school library, but also to the Boston Medical Library and the Boston Public Library. The Boston Medical Library is one of the largest of its kind in the United States, and students of this school may avail themselves of the opportunity for quiet study therein.

## **REQUIREMENTS FOR ADMISSION**

Matriculant shall have completed a four-year course of at least sixteen units in an approved high school or secondary school.

The subjects required as part of an approved high school course are:

English .....	4 years
Algebra .....	1 year
Geometry .....	1 year
History .....	1 year
Laboratory Science .....	1 year

The balance of the units may be made from any other high school subjects in which credit is given.

All students desiring to enter are required to submit an application upon a form provided by the school. This application must be accompanied by an application fee of \$3.00. Upon notification of acceptance the applicant is required to make a deposit of \$10.00 to insure a place in the class to which entrance is sought. This deposit is credited to the first semester's tuition upon completion of matriculation.

## **ADVANCED STANDING**

Advanced standing is granted to all applicants who have completed at least one year of study at an approved university or college in the major subjects of the Freshman year. Such standing is likewise granted to applicants who have completed the necessary entrance requirements and have covered the Freshmen subjects in an approved Optometry institution.

Applicants for such advanced standing must demonstrate to the heads of departments in those courses for which they seek credit that their qualifications are satisfactory in every respect. In each instance a personal interview is necessary before final acceptance.

### **MARKING SYSTEM**

The grade marks given are: A—Excellent; B—Good; C—Average; D—Lowest Passing; F—Failed.

A student is required to have an average of "C" for graduation. For purposes of computation, letter grades are converted into numerical equivalents and a factor system is used to determine the relative importance of each course and to arrive at an average grade for the year. The mere attainment of passing grades does not insure advancement or continuation in the School.

Re-examination will be permitted for the removal of deficiencies only in those cases approved by the Dean. A fee of \$2.00 will be charged for each special examination. Within one week after the date on which the examination was scheduled, a student must make a written request to the Dean of the School setting forth the reasons why the privilege of a special examination should be granted.

The right is reserved to dismiss a student at any time or to refuse recommending him for advancement or graduation.

### **RULES AND REGULATIONS**

The continuance in good standing of any student is dependent upon the satisfactory fulfillment of the rules and regulations of the School, as well as the observance of such moral standards as are deemed fitting for one preparing for the practice of Optometry.

The School reserves the right to cancel his registration at any time on any grounds it deems advisable.

### **ATTENDANCE**

It is a student's duty to attend punctually each class or laboratory exercise in each course. Tardiness counts half an absence. Students are held accountable for absences incurred owing to late enrollment.

## **TUITION AND FEES**

The total cost of tuition, all laboratory fees, and library fee is \$370 for each year. Diploma fee is \$15.

## **LABORATORY BREAKAGE**

The laboratory fees do not cover charges for breakage or waste of materials nor for any damage to the school property. This will be charged to the student who is responsible for this breakage or damage, or in any case where the responsibility cannot be placed on any one person, it will be charged to the group as a whole.

## **TRANSCRIPT OF RECORD**

A student may receive one certified transcript of his record without charge. For each transcript after the first, a charge of \$1.00 will be made. Requests for transcripts should be made in writing at least one week in advance of date desired. No transcripts will be issued during the busy season.

## **REFUNDS**

The School assumes the obligation of carrying the student throughout the year.

Instruction and accommodations are provided on a yearly basis; therefore no refunds are granted except in cases where students are compelled to withdraw on account of personal illness.

No grades are issued until all financial obligations to the school are discharged.

The Directors of the School reserve the right to change tuition rates and to make additional charges for special features and services whenever in their discretion such action is deemed advisable.

A student who withdraws from the school for good and sufficient reasons may be reinstated subsequently, provided not too long a time has elapsed, and provided further that changes in the curriculum do not render such re-admission impracticable.

## TEXTBOOKS AND EQUIPMENT

The latest editions of textbooks are required.

The minimum cost for new textbooks for the four years is \$120.

The minimum cost for new equipment for the four years is \$155.

This equipment includes:

A Diagnostic Set

Trial Frame

Practice Eye

Set of Tools for Optical Shop

Dissecting Set

Incidentals such as:

Laboratory notebooks

Drawing material

Record and Experiment sheets

Small accessories for Optometry and Optics

Laboratories

Clinical Uniforms

The cost of the textbooks and equipment is subject to change according to the cost of production.

All students are required to purchase new textbooks and new equipment.

The textbooks provide the nucleus for a professional library.

Practically all of the equipment can be used in professional practice after graduation.

The Faculty reserves the right to make such additions and changes in the list of the prescribed books and equipment as are deemed advisable.

## CURRICULUM

### FIRST YEAR — PRE-OPTOMETRY

General Chemistry

4 hours lecture, 2 hours laboratory

Mathematics

5 hours lectures

General Physics

3 hours lecture, 2 hours laboratory

Zoology and Comparative Anatomy

4 hours lecture, 2 hours laboratory

### SECOND YEAR

General Anatomy and Physiology

4 hours lecture, 2 hours laboratory

Ocular Anatomy and Histology

4 hours lecture, 2 hours laboratory

General Pathology and Bacteriology

5 hours lecture, 2 hours laboratory

Physiological Chemistry

3 hours lecture, 2 hours laboratory

Geometrical Optics

3 hours lecture, 2 hours laboratory

Practical Optics

3 hours lecture, 2 hours laboratory

### THIRD YEAR

Ocular Pathology

2 hours lecture, 1 hour laboratory

Physiological Optics

4 hours lecture, 2 hours laboratory

Practical Optics

3 hours lecture, 2 hours laboratory

Geometrical Optics

3 hours lecture, 2 hours laboratory

Theoretic Optometry

4 hours lecture

Practical Optometry

6 hours laboratory under supervision of clinical staff

FOURTH YEAR

Ocular Pathology

2 hours lecture, 1 hour laboratory

Physiological Optics

3 hours lecture, 2 hours laboratory

Practical Optics

3 hours lecture, 2 hours laboratory

Theoretic Optometry

4 hours lecture

Clinical Conference

5 hours lecture

Public Health Optometry

1 hour lecture

Optometric Jurisprudence

1 hour lecture

Clinical Practice

10 hours laboratory under supervision of clinical staff

In addition to the regular day clinics all members of the graduating class are held responsible to be called for duty in special evening clinics at various places. There is no exact number of hours scheduled for each student, but each is required to supply a substitute in case of illness on his part.

## **OUTLINE OF COURSES**

### **GEOMETRICAL OPTICS**

*Second Year*

GEOMETRICAL OPTICS AND LABORATORY I. This course follows the course in General Physics, since a general knowledge of physics is an indispensable preparation for a detailed study of Geometrical Optics. The following subject matter is covered in the course: photometry, shadows, reflection and refraction at plane and spherical surfaces, compound reflecting systems, infinitely thin lenses.

*Third Year*

GEOMETRICAL OPTICS AND LABORATORY II. A continuation of Geometrical Optics I. This course includes: equivalence of thin lenses, optical instruments, entrance and exit pupils, resolving and magnifying power of instruments, thick lenses, thin and thick compound systems, thin and thick prisms, achromatic and aplanatic systems.

### **PRACTICAL OPTICS**

*Second Year*

PRACTICAL OPTICS AND LABORATORY I. This course is given in two parts, the first being the regular classroom lectures and the second, laboratory exercises to supplement the classroom work. This course includes: history and manufacture of various types of glass; construction of all types of simple lenses in chronological sequence; simple prisms; decentration; simple lens marking; simple surface grinding and edging.

*Third Year*

PRACTICAL OPTICS AND LABORATORY II. A continuation of Practical Optics I. This course consists of both classroom work and a supplementary laboratory course. The material covered includes: surface grinding, centering, axis marking, cutting, edging, neutralizing, decentering, prism work; imbalances, obliquely crossed prisms, frame fitting including all types of modern mountings; theory of special instruments such as Axometer, Vertometer, Lens Measure, Colmascope, etc.

#### *Fourth Year*

PRACTICAL OPTICS AND LABORATORY III. A continuation of Practical Optics II. This course consists of classroom lectures and the practical application of the material so taught in the optics laboratory. The material covered includes: bridge bending and adjusting; prescription writing; making up of complete Rx jobs; fitting bifocal lenses; corrected lenses; tinted and protection lenses; cataract and special lenses; modern bifocals and trifocals.

### **THEORETIC OPTOMETRY**

THEORETIC OPTOMETRY I AND II. This course includes: history of Optometry; subjective and objective methods of examination. This subject and Physiological Optics are so closely woven together that no sharp line of demarcation can be made between the two; therefore, a considerable portion of Optometry may be included under Physiological Optics and Physiological Optics under Optometry. Also includes a comprehensive course on field study.

### **CLINICAL CONFERENCE**

#### *Fourth Year*

The conference periods are devoted to discussion and analysis of problems and various cases examined in the clinic. The aim of this course is to teach systematic analysis of anomalous conditions with special reference to etiology and corrective procedure. Case analysis is given special attention.

### **GENERAL CHEMISTRY**

#### *First Year*

GENERAL CHEMISTRY AND LABORATORY I. This is an introductory course in general chemistry for first year college students. The following topics are among those included in this course: the nature of matter and energy; the properties of gases, liquids, and solids; valence, equations, and calculations; the chemistry of metals; theory of ionization; an introduction to organic chemistry. Special attention is given to subject matter relating to optometrical studies.

## **PHYSIOLOGICAL CHEMISTRY**

*Second Year*

PHYSIOLOGICAL CHEMISTRY AND LABORATORY I. This is a course in advanced chemistry for second year students. The subject matter is selected in order to give the student a better understanding of human physiology and pathology.

## **GENERAL PHYSICS**

*First Year*

GENERAL PHYSICS AND LABORATORY I. This is a first year course in introductory college physics.

## **GENERAL ZOOLOGY**

*First Year*

GENERAL ZOOLOGY AND LABORATORY I. Representative vertebrate and invertebrate forms are studied with emphasis on comparative anatomy. An introduction to heredity, embryology, and organic evolution is given, and broad zoological principles are presented.

## **MATHEMATICS**

*First Year*

MATHEMATICS. The first part of this course is a review of Secondary School mathematics to enable the student to be better prepared for his college work. Later in the year the study of Trigonometry is stressed. The mathematics is taught with the idea of giving the pupil a foundation for his work in optics.

## **GENERAL ANATOMY**

*Second Year*

GENERAL ANATOMY AND LABORATORY. This course includes the gross and microscopical structure of the human body including the various organs and systems. The purpose of this course is to give the student a general knowledge of the anatomy of the body as a whole so that he will be better able to understand the functioning of certain specific parts.

## **OCULAR ANATOMY AND HISTOLOGY**

*Second Year*

**OCULAR ANATOMY AND HISTOLOGY AND LABORATORY.** This course covers the study of the eyeball and its appendages. It is necessary to be thoroughly familiar with the gross anatomy and histology of the eye and its appendages in preparation for the study of Ocular Pathology. The lectures are supplemented by charts, diagrams, slides, and dissections of animal eyes.

## **GENERAL PHYSIOLOGY**

*Second Year*

**GENERAL PHYSIOLOGY.** This is a study of the functions of and systems of the human body. Special attention is paid to the neuro-muscular mechanism. This course serves to give the students a picture of the correlation of the various functions of the body. Given in connection with General Anatomy.

## **GENERAL PATHOLOGY AND BACTERIOLOGY**

*Second Year*

**GENERAL PATHOLOGY AND BACTERIOLOGY AND LABORATORY.** This course serves as a foundation for the work in Ocular Pathology. The subject matter covers: general conception and forms of morbid states; nature, extension, and sources of disease; general symptomatology, diagnosis, and prognosis; duration, course, and termination of disease; etc. The course in Bacteriology is to acquaint the student with certain fundamental principles of Bacteriology, especially with its effect on body tissues.

## **OCULAR PATHOLOGY**

*Third and Fourth Years*

**OCULAR PATHOLOGY.** This course is a comprehensive study of the diseases of the eyeball and its appendages. Relation of diseases of the eye and the general system.

## **PUBLIC HEALTH OPTOMETRY**

*Fourth Year*

PUBLIC HEALTH. This course is divided into two parts, the first dealing with public hygiene and the second with health education. In the former, consideration is given to the influence and social regulations upon personal and community health. Special attention is paid to lighting.

## **PHYSIOLOGICAL OPTICS**

*Third and Fourth Years*

PHYSIOLOGICAL OPTICS AND LABORATORY. This course illustrates the relationship between the physiology of the eye as associated with the phenomenon of vision and the optics of all parts of the eye.

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